

# SPFECOS

PEAVEY ELECTRONICS

## DTH™-4 Minimum Profile Enclosure

### SPECIFICATIONS

Frequency Response, 1 meter  
On-Axis, Swept Sine in Anechoic  
Environment:

50 Hz - 18 kHz

Low Frequency Cut-Off: (-3 dB point)  
50 Hz

Useable Low Frequency Limit:  
(-10 dB point)  
36 Hz

#### Power Handling:

Full Range  
600 W continuous (49 V RMS)  
1000 W program

Bi-amp Low  
600 W continuous (49 V RMS)  
1000 W program

Biamp Hi  
80 W continuous (253 V RMS)  
160 W program

Sound Pressure Level, 2.0 V (1 Watt)  
1 meter in Anechoic Environment:

98 dB

Maximum Sound Pressure Level:  
124 dB

Radiation Angle Measured at -6 dB  
point of Polar Response:

500 - 1,600 Hz:

Horiz. 88.3° ±15.9°

Vert. 54.2° ±12.6°

1.6 - 5 kHz:

Horiz. 81.8° ±13.6°

Vert. 50.7° ±8.5°

5 - 16 kHz:

Horiz. 59.3° ±15.3°

Vert. 41.2° ± 6.7°

Directivity Factor, Q (Mean):  
14.5 ±8.5

Directivity Index, Di (Mean):  
11.2 dB ±1.9 dB

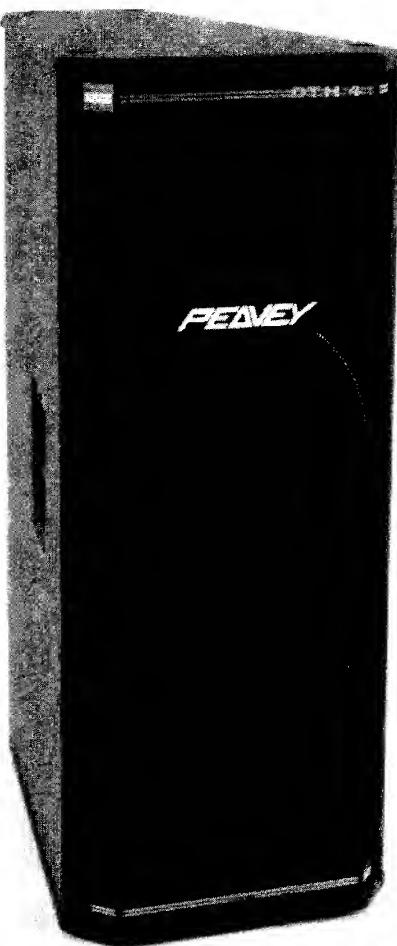
#### Transducer Complement:

Two 1505-8 DT Black Widow®  
One 44T™ compression driver coupled to  
a CH™-5 constant directivity horn

Box Tuning Frequency:  
48 Hz

Crossover Frequency:  
2 kHz

Time Offset:  
.69 mS (delay lows)



#### Impedance, Z:

4 ohms nominal

3.8 ohms minimum

#### Input Connections:

Two Neutrik® 4 conductor Speakon®  
(NL4MP)

#### Enclosure Materials & Finish:

3/4" plywood with battleship grey carpet &  
plasticized metal grille

#### Dimensions: (H x W x D)

46½" x 18¾" x 30¼"  
(1181 cm x 476 cm x 768 cm)

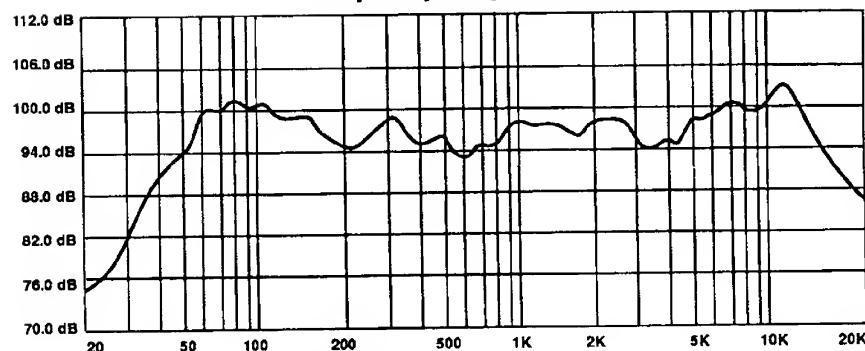
#### Net Weight:

158 lbs. (71.8 kg)

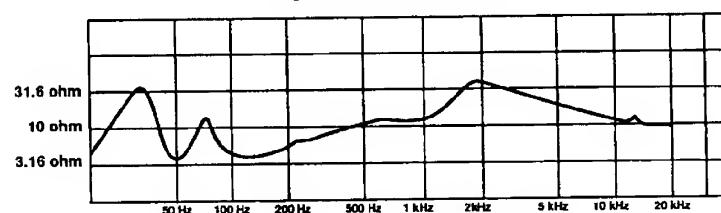
Neutrik® is a registered trademark of Neutrik AG  
Speakon® is a registered trademark of Neutrik AG

**PEAVEY®**

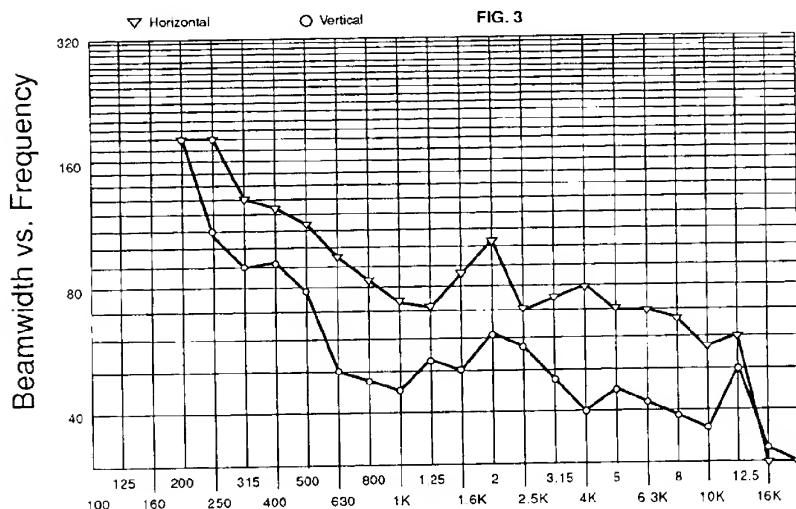
**Frequency Response, Fig. 1**



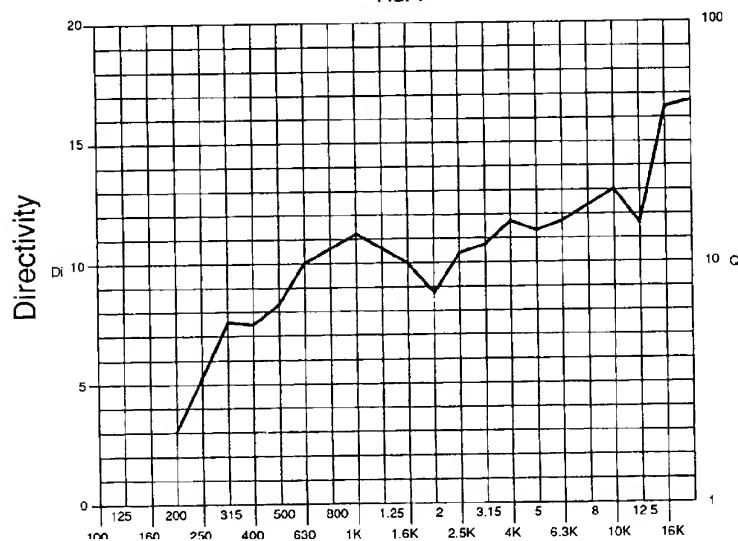
**Impedance, Fig. 2**



**FIG. 3**

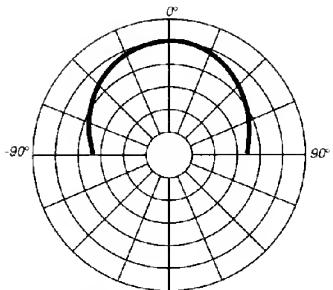


**FIG. 4**

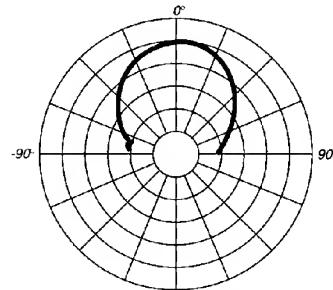


### HORIZONTAL POLAR PATTERNS

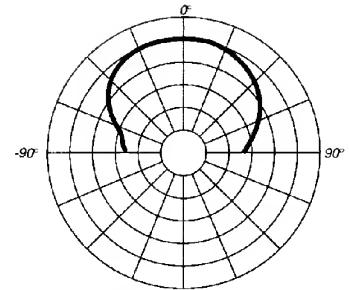
6 dB per division



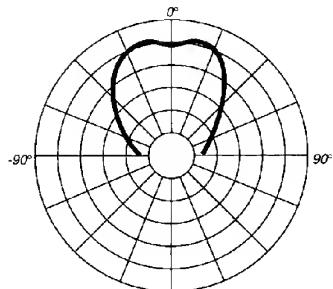
500 Hz —



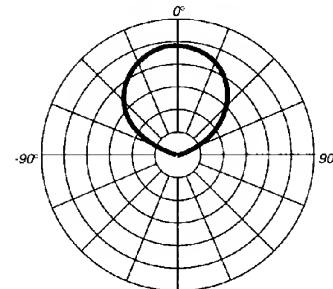
1 kHz —



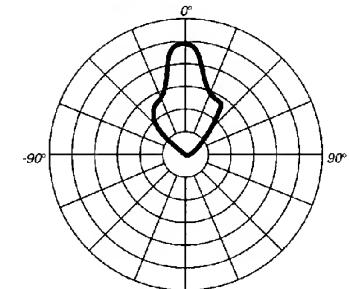
2 kHz —



4.0 kHz —



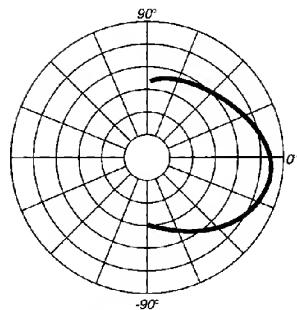
8 kHz —



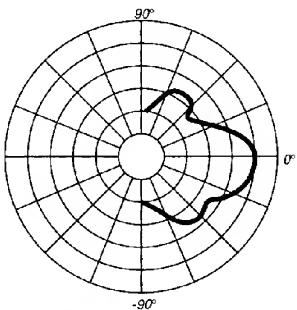
16 kHz —

### VERTICAL POLAR PATTERNS

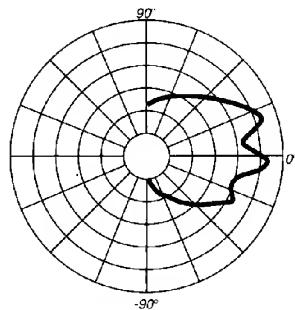
6 dB per division



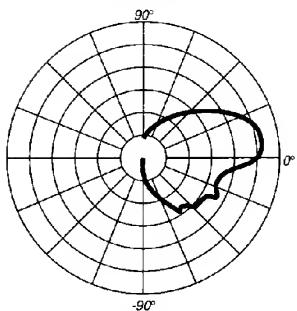
500 Hz —



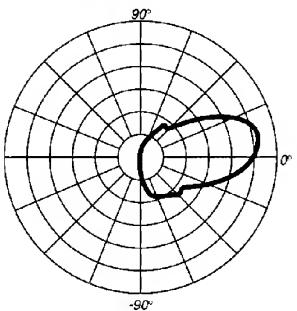
1 kHz —



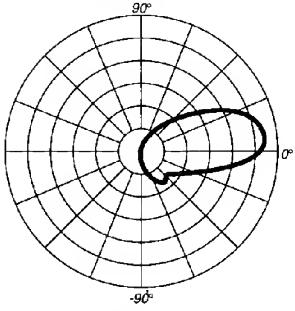
2 kHz —



4 kHz —



8 kHz —



16 kHz —

## FEATURES

- Full range/biamp operation
- Dual 1505-8DT woofers
- High power handling polypropylene capacitors
- 16 gauge plasticized metal grille
- Interlocking top/bottom for stackability

## DESCRIPTION

The new DTH™-4 was designed as a true minimum profile enclosure. It measures only 18 $\frac{3}{4}$ " at its widest point up front while tapering to a mere 9" at the back. Because of the trapezoidal geometry of these enclosures, building arrays is much easier. This shape also greatly reduces standing wave build-up within the enclosure. The DTH-4 is a pseudo-three way system using a 1505-8 DT woofer and a 44T compression driver coupled to a CH-5 horn. This is a constant directivity 80° x 40° horn. A second 1505-8DT woofer is used to reinforce the low frequency response of the system. The CH-5 used in this application has been cut-down to allow it to fit in the narrow baffle area. Access to the 44T is gained by removing the bolted on top. Recessed areas have been provided on the top that coincide with the placement of the feet on the bottom. This allows integral stacking of enclosures. An internal passive crossover is utilized to enable the system to run full-range directly from the factory. Bi-amp operation is also possible simply by moving a few jumper connectors on the circuit board. High power handling polypropylene capacitors are used throughout the crossover. This results in a cleaner sound, especially at high power levels, as well as improved reliability. Two Neutrik® 4 conductor Speakon® connectors are provided for input to the speaker. A "Battleship Grey" velour

carpet covers the DTH-4. This is a low wear, high abrasion resistant carpet, similar to those used in the automotive industry. A heavy-duty 16 gauge metal grille dresses off the enclosure and provides superior protection for the drivers. This grille has been specially coated with a plasticized paint. This aids greatly in damping grille vibrations at high sound pressure levels.

All this combines to give you a great looking and great sounding loudspeaker perfectly suited to any sound reinforcement application.

## DIRECTIVITY

Beamwidth and directivity factors are derived from the -6 dB points from the polar plots (see figure 3) which are measured in a whole space anechoic environment. These are specifications which provide a reference to the coverage characteristics of the enclosure. These parameters provide insight for proper enclosure placement and installation in the chosen environment. The blending of the components of the DTH-4 exhibits a desirable beamwidth and directivity factor (figure 3 and 4) suitable for all high-level sound reinforcement applications.

## FREQUENCY RESPONSE

This measurement is useful in determining how accurately a given enclosure reproduces an input signal. The frequency response of the DTH-4 is measured at 1 meter using a 2.0 volt swept sine input. As shown in Figure 1, the selected drivers in the DTH-4 combine to give a smooth frequency response from 50 Hz to 18 kHz.

## POWER HANDLING

There are many different approaches to power handling ratings. Peavey rates this speaker system's power handling

using a modified form of the AES Standard 2-1984. Utilizing audio band (20 Hz-20 kHz) pink noise with peaks over four times the RMS level, this strenuous test signal assures the user that every portion of this system can withstand today's high technology music. The test signal contains large amounts of very low frequency energy, effectively simulating the frequency content of live music situations. The full measure of high frequencies in the test signal allow for exposure of the speaker system to synthesized tone that may extend beyond audibility. This rating is contingent on having a minimum 3 dB of amplifier headroom available.

## ARCHITECTURAL & ENGINEERING SPECIFICATIONS

The loudspeaker system shall have an operating bandwidth of 50 Hz to 18 kHz. The output level shall be 98 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 4 ohms. The continuous power handling shall be 600 watts, maximum program power of 1000 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 80 degrees in the horizontal plane and 40 degrees in the vertical plane. The outside dimensions shall be 18 $\frac{3}{4}$  inches wide by 46 $\frac{1}{2}$  inches high by 30 $\frac{1}{4}$  inches deep. The weight shall be 158 lbs. The loudspeaker system shall be a Peavey model DTH™-4.

## ONE YEAR LIMITED WARRANTY —

**NOTE:** For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P. O. Box 2898, Meridian, Mississippi 39302-2898.



Features and specifications subject to change without notice.

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